

RUINS OF TINTERN ABBEY

**TINTERN ABBEY,  
 MONMOUTHSHIRE**

Yet still thy turrets drink the light  
 Of summer-evening's softest ray,  
 And ivy garlands, green and bright,  
 Still mantle thy decay;  
 And calm and beauteous as of old,  
 Thy wandering river glides in gold!

ALARIC A. WATTS.

In the centre of a sylvan valley, surrounded by solemn woods, stands TINTERN ABBEY, the glory of monastic ruins—the gem of the Wye. Of all the picturesque scenes along the course of that classic river, from its upland source in the wild blue hills of Cambria, to its junction with the turbulent and majestic Severn a little below Chepstow, this is one on which the mind loves to linger. How beautiful is that amphitheatre of green and wooded hills! What an air of peace does the valley wear! How sequestered from worldly turmoil. Surely this is the spot of all others for a structure dedicated to the worship of the Most High. Let us meditate upon thy changeful history, then, “holy Tintern\*,” let us

\* The name of Tintern, is supposed to be derived from the Celtic words *Din* a fortress, and *Teyrn* a sovereign; for it appears that a hermitage belonging to Theodoric or Tendric, king of Glamorgan, originally occupied the site of the Abbey. This royal hermit had resigned the throne to his son Maurice, and “led an eremitical life

examine thy lofty, ivy-clustered arches, piercing the sky,—and slowly trace thy crumbling walls and gorgeous tracery, beauteous in decay

Tintern owes its origin to Walter Fitz Richard de Clare, who in 1131 founded a monastery here for monks of the Cistercian order, and dedicated it to the Virgin Mary†. Walter dying without issue, his brother, Gilbert de Strongbow, lord of Striguil and Chepstow, and first earl of Pembroke, succeeded him, and considerably augmented the endowments; confirming to the monks all the lands, possessions, liberties, and immunities, granted by his predecessor. He died in 1148, and was himself buried at Tintern.

among the rocks of Dindryn.” It is remarkable, that two kings who sought Tintern as a place of refuge, should leave it to meet violent deaths; namely, Theodoric above mentioned, who was slain in battle by the Saxons, under Ceolwulf, King of Wessex, in the year 610, having been dragged by his subjects from his seclusion against his will, to act once as their leader; and Edward the Second who fled here from the pursuit of his Queen, Isabella. The Welch monarch is said to have routed the Saxons at Mather, near Chepstow, where his body was buried, having received in the action a mortal wound on the head; Bishop Godwin says that he there saw his remains in a stone coffin.

† The Cistercians were a branch of the Benedictine order, and are supposed to have first established themselves in England, at Waverley, in Surrey, in 1128. They afterwards appear to have increased considerably, as, at the dissolution, the number of monastic edifices belonging to the Cistercian order amounted to seventy-five, thirty-six of the superior monasteries being of this rule. Tintern, from the date of its foundation, is considered to have been one of the earliest edifices erected for the use of the order.

His brother then took the estates, but the male line of the family failing, Matilda the heiress, married Hugh Bigod, Earl of Norfolk and Suffolk. His grandson, Roger Bigod, according to William of Worcester, afterwards became a great benefactor; and from the same authority we learn, that he founded and endowed the abbey church, which was consecrated for Divine service in 1287. His arms were accordingly placed in the east window.

At the period of the dissolution of monastic edifices, there were only thirteen inmates; a number probably suggested by the idea of our Saviour and the Twelve Apostles. Some writers have contended from this, that the monastery was at no time during the period that it flourished, celebrated either for the number of its religious, or the extent of its possessions. We are, however, inclined to follow old Chaucer, who says, "for threttene is a covent I guess," evidently meaning that thirteen was the ordinary number of monks appertaining to religious establishments in general. The annual revenues were valued, according to Dugdale, at 132*l.* 1*s.* 4*d.*; but Speed estimates them at 256*l.* 11*s.* The site was granted 28th Henry the Eighth, to Henry, second earl of Worcester; and is now the property of the duke of Beaufort, a lineal descendant of that nobleman. During the civil troubles in the reign of the unfortunate Charles the First, the roof was stripped of its lead, doubtless for military purposes.

The remains of this splendid example of Gothic architecture in its greatest purity, have, as may be supposed, excited universal admiration, and been extolled by many writers. Sir Richard Colt Hoare remarks, "this abbey, (as to the finest *coup d'œil*), exceeds every ruin that I have seen in England and Wales;" and Archdeacon Coxo, speaking of Tintern in his *Historical Tour through Monmouthshire*, says, "the first impressions are those of grandeur and sublimity. But as these emotions subside, and we descend from the contemplation of the whole to the examination of the parts, we are no less struck with the regularity of the plan, the lightness of the architecture, and the delicacy of the ornaments; we feel that elegance is its characteristic no less than grandeur, and that the whole is a combination of the beautiful and sublime." Mr. Roscoe, in his *Wanderings*, is of opinion, that the exterior view is rather disappointing than otherwise; yet, "the lack of enthusiasm we feel while on the outside, seems to serve only as a greater enhancement of the glory within." We cannot quite subscribe to this opinion; on the contrary, we think that the view of the exterior, particularly that which bursts on the spectator at an angle of the road from Chepstow to Monmouth, is imposing and beautiful in the extreme, especially when viewed near sunset, on a fine evening in Summer, when the glorious luminary of day gilds with his departing rays the "storied windows," and elaborate tracery. This is also the best period to see the interior. The only drawback to the picture, on closely approaching the abbey, and which certainly destroys in some measure the pleasing associations that crowd upon the mind of the visiter to this ancient shrine of superstition and learning, are the shabby dwellings observable in the western vicinity of the abbey walls; but this after all is of minor importance, and has been dwelt upon by some writers more strongly than is strictly accordant with reality and truth.

Tintern by moonlight is solemnly grand; and the effect of the silvery beams of that planet, casting a mild radiance over the "wild secluded scene," may be imagined, but not described. Of the admirable

effect of five architectural fabrics at such periods, a beautiful illustration occurs in the *Lay of the Last Minstrel*, in the well-known lines on the ruins of Melrose.

Reed, in his *Remains*, thus eloquently speaks of Tintern by moonlight:—

The great tree, or vegetable rock, or emperor of the oaks, (if you please,) before which I bowed with a sort of reverence in the fields of Tintern, and which for so many ages has borne all the blasts and bolts of heaven, I should deem it a gratification of a superior kind, to approach again with "unsandaled foot" to pay the same homage, and to kindle with the same devotion. But I should find amidst the magnificent ruins of the adjoining abbey, something of a sublimer cast, to interest and give poignancy to my feelings. I must be alone. My mind must be calm and pensive. It must be midnight. The moon half veiled in clouds, must be just emerging from behind the neighbouring hills. All must be silent, except the wind gently rushing among the ivy of the ruins. The river lulling by its faint murmurings its guardian genius to repose, and the owl, whose funeral shriek would sometimes die along the walls in mysterious echoes. I should then invoke the ghosts of the abbey; and Fancy, with one stroke of her magic wand, would rouse them from their dusty beds, and lead them into the centre of the ruin. I should approach their shadowy existences with reverence, make enquiries respecting the customs and manners, and genius and fate of antiquity, desire to have a glimpse of the destiny of future ages, and enter upon conversations which would be too sacred and even dangerous to communicate.

The conventual church, which forms the principal portion of the existing ruins, is a cruciform structure, built in the style of a cathedral, consisting of a nave, north and south aisles, transepts, and choir. Its dimensions are extensive:—the length from east to west measures two hundred and twenty-eight feet; and from north to south at the transepts, one hundred and fifty feet. The nave and choir are thirty-seven feet in breadth; the height of the central arches is seventy feet; of the smaller arches thirty feet; of the east window sixty-four feet; of the west window forty-two feet. The total area originally enclosed by the walls of the abbey, is said to have been thirty-four acres.

The exterior of the western front, especially on a near approach, is singularly striking; but on entering the interior through the western door, a scene of such solemn grandeur and beauty is suddenly opened, that even the most tasteless and indifferent beholders cannot but be very powerfully impressed by it. We feel in an instant that we stand upon holy ground.

When we stood at one end of this awful piece of ruin, and surveyed the whole in one view, (exclaims Gilpin,) the elements of air and earth, its only covering and pavement; and the grand and venerable remains which terminated both, perfect enough to form the perspective, yet broken enough to destroy the regularity, the eye was above measure delighted with the beauty, the greatness, and the novelty of the scene.

The walls of the Abbey Church are nearly entire; and most of the elegant columns which separated the nave from the south aisle are yet standing, as are the four lofty and magnificent arches, (though now reduced to mere skeletons of stone,) that formerly supported the tower in the centre. The columns that divided the nave from the north aisle have fallen, but the bases still attest their number and site. The shapes of the windows are little altered by time; though some are obscured by a luxuriant and graceful drapery of ivy, the tendrils of which twine in their tracery, creep along the walls, encircle the columns, and form natural wreaths around the capitals. The forms of the principal windows are, however, yet so far preserved, as to be easily discriminated; the tracery of the western

window in particular, is singularly exquisite; and the light and graceful eastern window, occupying almost the whole breadth of the choir, with its slender, umbilical shaft rising to a height of fifty feet, diverging at the top into rich tracery, has quite a magical effect. Several of the other windows are also, more or less, richly adorned. The roof of this venerable edifice has long since fallen;—the vault of heaven alone forms its canopy, and the "flower of the field" constitutes its pavement, the flooring of enamelled tiles having been removed by the hands of the sacrilegious spoiler. The solemn melancholy of the deserted fane is occasionally disturbed by the whooping of some solitary owl, or the chattering of restless jackdaws, which singularly enough desert at certain intervals their ivied haunts, and again return at regular periods to their ancient home. The interior is kept very neat and trim; the turf, which is carefully mown, being strewn with the ornamented fragments of its former magnificence, and the sepulchral relics and mementos of its ancient benefactors and possessors. Among these mutilated effigies is the figure of a knight in chain-armour, a *pavache* shield, and crossed legs, as a Crusader, or a vovew to take the Cross. This figure has been ascribed to Gilbert Strongbow, first Earl of Pembroke, a celebrated warrior of the time, upon the authority of the Abbey chronicle which mentions his interment here; Sir S. R. Meyrick, however, considers the effigy to be that of Roger de Bigod, Earl of Norfolk. The rude sculpture of the hand has given rise to the opinion that he had five fingers and a thumb on his right hand. How forcibly do these time-worn emblems of a by-gone age remind us of the beautiful and impressive language of Scripture! "One generation passeth away, and another generation cometh;" and "verily every man at his best state is altogether vanity."

By means of steps, rails, and planks, all travellers, even the most timid female, may safely inspect the interior of the Abbey in every part. A circular stone staircase, in excellent preservation, leads the visitor to the summit of the north transept, but there is nothing particularly striking from this point; the majestic grandeur of the ruin is indeed seen to most advantage from the ground. There are some remains of the refectory on the north side of the church, and an oratory adjoining, is supposed to have been used for saying grace at the time of meals. Vestiges of the dormitory, and several other apartments, may also be observed. Some picturesque remains near the river side, are supposed to have been the Abbot's lodge: and others which formed the cells of the monks have been converted into cottages for the poor.

Tintern Abbey Church, according to Dugdale, "is in all its parts, a unique whole, a copy of Salisbury cathedral, built only a few years before;" and there is also said to be a great resemblance between this Abbey and Netley, which was erected in the same era. There appears to be some doubt whether the church was completed in the thirteenth century, as the great eastern window is in the style of the succeeding one.

The extreme neatness in which the ruins are kept, has been objected to, as quite inconsistent with the air of solemn desolation indispensable in a ruined religious edifice, and the removal of the monuments in clearing the interior, has been pronounced "foolish and injurious, and as answering no purpose." Whatever truth there may be in the latter allegation, with regard to the former, it is abundantly evident that the highest credit is due to the noble

owner of this venerable pile, for the steps that have been taken to secure it from further dilapidation\*; for though the destroyer has dealt leniently with it, yet if we look to the ravages that have been made, and we grieve to say are still making, in many other of the beautiful and interesting ruins that adorn this island in almost every part, and which form such distinguishing features in British scenery, we cannot but have reason to be grateful, in common with every admirer of ecclesiastical architecture in its noblest form.

In concluding our account of this "seat of devotion, solitude, and desolation," we cannot do better than sum up in the impressive language of Bucke†:—"As the Abbey of Tintern is the most beautiful and picturesque of all our Gothic monuments, so is the situation one of the most sequestered and delightful. One more abounding in that peculiar kind of scenery which excites the mingled sensations of content, religion, and enthusiasm, it is impossible to behold. There every arch infuses a solemn energy, as it were, into inanimate nature: a sublime antiquity breathes mildly in the heart; and the soul, pure and passionless, appears susceptible of that state of tranquillity which is the perfection of every earthly wish."

#### ON THE LEAVES OF PLANTS.

To the account already given‡ of some of the organs by which plants are nourished, we now add a few plain directions for dissecting certain parts of plants.

For the purpose of minutely examining the structure of vegetables, a microscope of a highly magnifying power is necessary, and an extreme delicacy of hand which falls to the lot of but few. Some of the component parts of a leaf are, however, easily shown, if only common care be employed in their preparation, and nothing can form a more beautiful object than a well dissected leaf or seed-vessel.

The method of preparing these objects of natural history is extremely simple. Leaves of various plants, such particularly as the thistle, holly, willow, and many others, and the seed-vessels of the winter-cherry, poppy, &c., are to be gathered at that time of the year when they are perfectly mature, and their fibrous parts in their state of greatest hardness. They are to be laid in a large, shallow, earthenware vessel, such, for instance, as a cream-pan or a large dish; they are then to be kept covered with clean water, and as often as the colouring matter in the leaves has stained the liquor, it is to be removed, and fresh water poured over them§.

After a few weeks, (but the time depends on the warmth of the weather,) the leaves may be taken out singly, and laid on a smooth plate of glass, the green

\* It is only justice to note, that nearly all the splendid ruins belonging to the Duke of Beaufort, are kept in a high state of preservation; and much credit is due to Mr. Wyatt, his grace's agent, for the attention he bestows upon them.

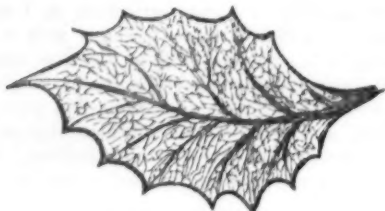
† In *The Beauties, Harmonies, and Sublimities of Nature*.

‡ See *Saturday Magazine*, Vol. V., p. 116.

§ The best method of removing the water, without disturbing the leaves, is by means of a small siphon, a bent tube, with one leg longer than the other; fill this tube with water in the following manner: Hold the siphon in your left hand with the bent part downwards, then pour in water until it rises to the level of the opening of the short leg, then stop the open end of that leg with your finger, and continue to pour water in until the longer leg is full; now reverse the siphon, still keeping the opening of the short leg well stopped, and hang it over the edge of the vessel with the short leg plunged in the water; the finger may now be removed, and the water will flow up the short leg over the arch of the siphon and down the long leg, and it will continue to flow as long as there is sufficient depth of water to allow the opening of the short leg to be immersed without touching the bottom of the vessel. A piece of sponge will answer nearly as well, by first allowing it to take up as much water as it can, and then squeezing it out.



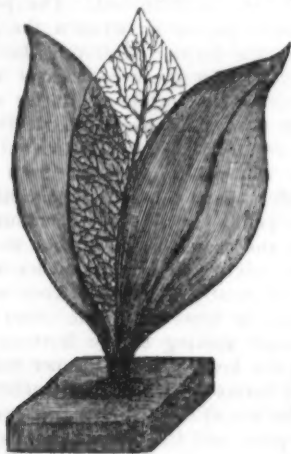
skin with which they are covered will be found sufficiently softened to allow of the removal of a portion of it, by gently wiping it with the finger or a camel-hair pencil; a basin of clear water will be useful to rinse the leaf after this operation, and remove the loose pieces of green matter. The leaf is then to be returned to the flat vessel, and allowed to remain a few weeks longer, to loosen such parts of the skin as could not be removed in the first instance. If this operation has been carefully performed, a beautiful skeleton of the leaf will be the result.



LEAF OF THE HOLLY.

This should then be placed between leaves of dry blotting-paper, to extract the moisture, and then carefully dried under a gentle pressure, unless the nature of the leaf requires that it should be dried in a curled position.

This mode of preparing a leaf will be successful with most people; but a more delicate and beautiful preparation may be made if greater skill be brought to the task, and greater care taken in the delicate dissection. The skeleton, or woody part of the leaf, is, in reality, in three layers, and these may in some cases be separated and properly displayed, as here shown. The two outer layers of this preparation



are the thin green skin, or epidermis, and require great care in their dissection; the other, or central layer, consists of a double series of vessels, having all the appearance of veins and arteries, differing in size and in colour, and inosculating with others, that is, the finer extremities or mouths of each are united. If the water in which the leaves are steeped is made slightly acid by the addition of a little sulphuric acid, the process will be hastened, but there is some danger of injury to the skeleton by the action of the acid.

*ENVY* is a passion actually diabolical in its nature, for it makes war against God himself; and being incapable in its impotence of clouding his Sovereign Majesty, it attacks him in the gifts his beneficence has bestowed on man.—*Book of the Fathers.*

## ON WRITING MATERIALS

## No. IV.

## HISTORY OF WRITING PAPER.

FROM the first hour that men perceived the advantage and necessity of recording their thoughts in such a form that distant countries and future times should possess the power of interpreting them, it is obvious that a material was to be discovered, which should permit the written symbols to be marked upon it in a legible form, and which should, at the same time possess such a degree of durability as would enable it to withstand the operation of conveyance from place to place, and would preserve it from decomposition and destruction by vicissitudes of climate.

The materials which were used for this purpose in the early ages, and indeed, down to the time of the invention of paper, were palm-leaves, inner-bark, papyrus, waxed tablets traced with a style (such as we have before alluded to), skins, lead, cloth, silk, &c. The ancients were not accustomed, at first, to arrange their leaves into the form of a square book, as is customary with us, but when they had more to write than would fill one skin or leaf, they sewed several together, and wound them on a centre stick. Many specimens of this kind were found in the ruins of Herculaneum. They were burnt to a cinder, and looked much like petrified wood; some of them, however, were capable of being separated sufficiently to examine their structure. They were found to consist of small sheets, or pieces, about the size of the hand, and pasted together edge to edge, so as to form one long sheet.

The Egyptian paper, of which these were formed, was made of a rush or reed called *papyrus*, or *biblus*, growing chiefly in Egypt, on the banks of the Nile. In the preparation of this reed into paper, they cut off the two extremities, viz. the head and root, as being of no use in the manufacture. The stem was then slit lengthwise into two equal parts; and from each of these the thin scaly coats or pellicles, of which the reed consisted, were stripped with a sharp instrument: the innermost skin was considered the best, and the outermost the worst in quality, and thus were formed films of different value. Pliny gives names to twelve different kinds or qualities of these films. As the films were removed, they were laid out flat upon a table; then two or more of them were laid across each other transversely, so that their fibres should lay at right angles. In this state they were glued, or fastened together by being dipped into the muddy water on the banks of the Nile, which was found to make them adhere together. The water was then pressed out, and the films left to dry; after which, they were pressed and beaten with mallets, to obtain a smooth surface: this then constituted Egyptian paper. In those provinces or countries where the waters of the Nile were not at hand, the films were connected together by means of a paste much resembling our flour-paste. It is supposed that the mode in which the water of the Nile acted as a cement, was by dissolving certain viscid or gummy matters contained in the reed. The city of Alexandria was the great paper mart of Egypt.

At the time when the Egyptians, and other countries with which they were in communication, used the papyrus, more distant nations formed their paper from the *liber*, or inner, whitish rind, enclosed between the outer bark and the wood of certain trees,—such as the elm, maple, beech and plane, and particularly the linden tree. This rind was stripped off, flattened, and dried, and was then considered to be fit for writing on; but it was much inferior to the

Egyptian papyrus. *Liber* is the Latin word for a book, and from this we get our modern term *Library*.

In China, paper is made of the rind or inner bark of the mulberry, the elm, the bamboo, the cotton, and other trees. These rinds undergo a process very different from what we have yet described.

As the processes are nearly alike for the different kind of trees, we will select bamboo paper as an example.

The bamboos, which are three or four inches thick, are deprived of their leaves, cut into pieces, four or five inches long, and steeped for some days in water. When softened, they are washed in pure water, put into a dry ditch, and covered with slaked lime. They are again washed; and after being cut into small filaments, the whole are exposed to the sun to dry and bleach. The filaments are then boiled, and afterwards reduced to a fine pulp by a process of beating. Some shoots of a plant called *Koteng* are steeped in water, by which they acquire a glutinous consistency, and in which state they are added to the bamboo pulp.

The whole mixture is then beaten together in mortars, until it acquires the consistency of a thick, viscid liquid. It is then poured into large tubs or reservoirs; into which the paper-maker dips the frame or mould which is to give the proper size to the sheet of paper. On this frame he takes up as much pulp as will make one sheet. The thin layer of pulp is then dried by being placed against the smooth surface of a stove, or hollow heated wall. The pulp leaves the mould and adheres to the wall; from whence it is easily removed when dry. The paper is in this state too absorbent to receive ink or colour; it is therefore dipped in a liquid solution of isinglass and alum.

Paper has been made of asbestos, a very remarkable mineral, which may be exposed to a great heat and intense flame without being burned. It is a greenish, gray, fibrous stone, which is found in large quantities in Corsica. Professor Bruckmann, of Brunswick, wrote a treatise on the manufacture of paper from asbestos, and printed four copies of the work on paper of that kind. Mr. Lloyd described in the *Philosophical Transactions*, the mode in which he himself had been enabled to make incombustible or asbestonic paper. He pounded a quantity of the asbestos in a mortar till it became a downy substance; then sifted it in a fine sieve, by which the stony and earthy matters were sifted through, in the state of powder, leaving the fibrous asbestos in its downy state. The asbestos was then put into water, and stirred well up in it, and poured into a flat mould, much in the same manner as the Chinese paper. The result was a paper neither very fine nor very strong, but one that was incombustible. The advantages of this paper do not seem however to have been valued at a very high price, for its manufacture has not been persisted in.

There are many interesting particulars relating to parchment which will occupy a future article; but we may remark that about the tenth or twelfth century, manuscripts which were formerly written on parchment, began to be written on a paper made of cotton. There are many MSS. in the library of the king of France written on cotton paper; but the mode in which this paper was made, does not appear to be now known.

We now come to that important species of paper, whose production has been so beneficial to mankind, —we mean linen paper. It has been said that the incalculable advantages which the moderns have derived from the art of printing, would have been only imperfectly known, but for the invention of

making paper out of our old and tattered linen garments.

At what time linen paper was first made is a matter of dispute, but it appears to have been first employed among us about 500 years ago; but for a long time after its invention, this country obtained its supply from abroad. The only sort made in England until about 1690 was the coarse brown paper; but as the war with France occasioned very high duties to be laid on foreign productions, some French protestant refugees settled in England, and introduced the manufacture of white writing-paper. This manufacture soon arrived at great perfection in England; insomuch that 300,000 reams of paper were made in England in 1721. At the present day it is computed that the value of the paper made in England is about 1,300,000*l*. There are about 700 paper mills in England, and 80 in Scotland, which employ about 27,000 persons in the direct manufacture; besides those engaged in erecting the mill-work, and other machinery.

Of the linen rags of which paper is made, about three-fifths of that which is used in England is imported from foreign countries, principally from Italy, Germany, Hungary and Sicily, the exportation of rags being prohibited in France, Holland, Belgium, Spain and Portugal. The imported rags arrive in England in close bags, each bag being marked to indicate the quality of the rags contained in it. The rags are taken to the mill, where a further sorting takes place, before the process of paper-making commences.

We will now briefly describe the different kinds of paper made in England at the present day.

*Writing* and *Drawing* papers are those on which the greatest care is bestowed. The principal distinction in these papers is between the *laid* and the *wove* papers: the former exhibiting the lined water-marks, derived from the wire-work of the mould in which they are made; while the latter are perfectly smooth and even, in consequence of the mould in which they are made being constructed of very fine copper wire, woven into a sort of cloth:—hence the name. A difference of colour is observable in writing-paper; the yellow is nearly the colour of the rags from which the paper is made, but the blue tint is given by the mixture of smalt (powder-blue) with the pulp. We frequently see in blue wove writing-paper, that one side is bluer than the other; this arises from the smalt sinking to the bottom of the pulp, and dyeing the lower surface deeper than the other. The general terms by which the qualities (independently of the sizes) of writing-papers are known are *laid*, *yellow-wove*, and *blue-wove*; and they are almost uniformly done up in quires of 24 sheets each, 20 of which quires make a ream. The sizes of the sheets of Drawing or Writing paper, go through a range of nearly thirty different sizes from *pott* paper, of which the sheet is 15½ inches by 12½, to a kind which is called *antiquarian*, of which the size is 52½ inches by 30. The common letter-paper, as sold in the shops, however, is seldom of the size in which the sheets are made. There are about a dozen different kinds of post paper, of which the sheets are made, on an average, about 21 inches by 16: these are cut into two halves, and then folded, and the edges cut smooth; in which form they constitute the common *Bath post* of the stationer. Those writing-papers which are gilt or blacked at the edge, undergo those processes after the folding and cutting have been performed.

Those which we have above described are the papers used for drawing or writing; but a different

kind is employed by the printer. The printing-paper used for copper or steel-plate impressions is similar in sizes to the drawing-paper; but it is of a soft and absorbent nature, which is occasioned by the absence of the size which is used to stiffen drawing and writing papers; though when the plates are to be subsequently coloured, drawing paper is generally employed. Those copies of an engraving which are called *proofs*, and which are the earliest printed and the most costly, are taken on a very thin paper, laid on the usual print paper. This thin paper is *China* or *India* paper, and is brought to this country in sheets upwards of four feet long by two feet wide: it has a softness and pliability which enables it to take an impression from the finest lines of an engraving, and in so equable a manner that the representation becomes an exact type of the engraved lines on the plate. There is very little size in printing-paper, because the ink which printers use does not run in the way which common ink would. The effect of size in preventing the ink from spreading on paper is clearly shown by the action of blotting-paper, in the manufacture of which no size is used; as soon as a spot of ink touches this paper,—particularly the white variety,—the ink is instantly absorbed into the substance of the paper: it is for this reason that it is so universally employed to hasten the drying of a newly written sheet of paper. There is a kind of tissue paper which acts much in the same way, and is known as *copying post*: it has no size in its construction. When a sheet of paper is written on with an ink made for that express purpose, a sheet of this copying-paper is laid upon it, and the two are subjected to pressure, which causes an impression of the writing to be left on the copying-paper. This contrivance is sometimes used in mercantile houses, where copies of letters are necessary to be retained.

The *card paper* with which playing-cards are made, is generally brought from Genoa, a small part only of that which is used for this purpose being made in England; although the price of the English card is much less than that of the Italian.

*Marbled papers* are prepared in a curious way. A shallow trough contains gum tragacanth dissolved in water; and the surface of the gum-water is sprinkled with colours. These colours are any of the usual pigments, mixed up with ox galls, and are sprinkled on the surface of the water with a brush, one colour at a time. When all the required colours are sprinkled, the workman draws a stick to and fro in the water, to arrange the colours into any fantastic form; and to increase this effect, a comb, about five inches long, is drawn along the surface, by which the colours, on account of the glutinous nature of the gum-water, are dragged out of their original position and thrown into various forms. The sheet of paper to be marbled is then dexterously laid on the surface of the liquor in the trough, so that one side shall touch the coloured surface of the gum-water in every part; it is then taken out, and placed in some convenient place to dry. Much tact is required in this operation.

In our next article we shall describe the modes of making paper.

If men were content to grow rich somewhat more slowly, they would grow rich much more surely. If they would use their capital within reasonable limits, and transact with it only so much business as it could fairly control, they would be far less liable to lose it. Excessive profits always involve the liability of great risks, as in a lottery, in which there are high prizes, there must be a great proportion of blanks.—WAYLAND.

## HARVEST.

Now o'er his corn the sturdy farmer looks,  
And swells with satisfaction to behold  
The plenteous harvest which repays his toil.  
We too are gratified, and feel a joy  
Inferior but to his, partakers all  
Of the rich bounty Providence has strewed,  
In plentiful profusion o'er the field.  
Tell me, ye fair, Alcanor tell me, what  
Is to the eye more cheerful, to the heart  
More satisfactory, than to look abroad,  
And from the window see the reaper strip,  
Look round, and put his sickle to the wheat?  
Or hear the early mower wet his scythe,  
And see where he has cut his sounding way,  
E'en to the utmost edge of the brown field  
Of oats and barley? What delights us more,  
Than studiously to trace the vast effects  
Of unabated labour? To observe  
How soon the golden field abounds with sheaves?  
How soon the oat and bearded barley fall,  
In frequent lines, before the keen-edged scythe?  
The clatt'ring team then comes, the swarthy hind  
Down leaps, and doffs his frock alert, and plies  
The shining fork. Down to the stubble's edge  
The easy wain descends half built, then turns,  
And labours up again. From pile to pile  
With rustling step the swain proceeds, and still  
Bears to the groaning load the well-poised sheaf.  
The gleaner follows, and with studious eye  
And bended shoulders traverses the field,  
To cull the scattered ear, the perquisite  
By heaven's decree assigned to them who need,  
And neither sow nor reap. Ye who have sown,  
And reap so plenteously, and find the grange  
Too narrow to contain the harvest given,  
Be not severe, nor grudge the needy poor  
So small a portion. Scatter many an ear,  
Nor let it grieve you to forget a sheaf,  
And overlook the loss. For He who gave  
Will bounteously reward the purposed wrong  
Done to yourselves; nay, more, will twice repay  
The generous neglect.—HURDIS.

LET not any one say he cannot govern his passions, nor hinder them from breaking out and carrying him into action; for what he can do before a prince or a great man, he can do alone, or in the presence of God if he will.—LOCKE.

WHATEVER difficulties you have to encounter, be not perplexed, but think only what is right to do in the sight of Him who seeth all things, and bear without repining the result.—*The Original.*

If there be one thing more surprising than another in the investigation of natural phenomena it is perhaps the infinite extent and vast importance of things apparently little and insignificant. When we see an insect, smaller perhaps than a mite, moving with agility across the paper on which we write, we feel as incapable of forming any distinct conception of the minutiae of the muscular fibres which effect these movements, and of the still smaller vessels by which they are nourished, as we are of fully apprehending the magnitude of the universe, and one of the last conclusions at which we arrive is the conviction that the greatest and most important operations of nature are conducted by the agency of atoms too minute to be either perceptible by the human eye, or comprehensible by the human understanding. We cannot better conclude than in the words of Mr. Ellis, who thus expresses his feelings in his beautiful *History of living Corallines*. "And now, should it be asked to what end has so much labour been bestowed on this subject, I can only answer, that as to me these disquisitions have opened new scenes of wonder and astonishment in contemplating how extensively life is distributed through the universe of things, so is it possible the facts here related may excite the same ideas in others, and we may learn that if creatures of so low an order in the great scale of nature are endued with faculties that enable them to fill up with so much propriety their sphere of action, we likewise who are advanced so far above them, owe to ourselves, and to Him who made us and all things, a constant endeavour to acquire that degree of rectitude and perfection to which we are also endued with faculties of attaining."—BUCKLAND.



## CORONATION ANECDOTES. No. VI.

## EDWARD IV.

THIS monarch had his title confirmed by the forms of a popular election. Immediately after his victory over Henry VI., he came to London, and returned thanks to God at St. Paul's church. He was then conducted in solemn procession to Westminster, and placed on the King's Bench, in the Hall, which was filled with people. His claim to the throne was stated to be twofold,—first, as son to Richard, duke of York, the rightful inheritor of the realm; secondly, by authority of parliament, and forfeiture committed by King Henry. It was then demanded of the commons whether they would accept this prince to be their sovereign; to which all assented. He was crowned by Archbishop Bouchier, June 29th, 1461.

Lady Elizabeth Gray was crowned as Edward's queen by the same archbishop, May 26th, 1465. In her previous procession through London, she rode in a horse-litter, escorted by a great number of knights.

## EDWARD V.

Preparations were made for the coronation of Edward V., but the barons and commons refused to accept any of the late king's sons as their sovereign, and tendered the crown to Richard, duke of Gloucester, who accepted it with affected reluctance.

## RICHARD III.

Richard III. and his queen, Anne, daughter to the earl of Warwick, were crowned on the 5th of July, 1483, "With the selfe same provision," says Grafton, "that was appointed for the coronation of his nephew." It is exceedingly probable that this unfortunate prince bore a part in the procession, for on the coronation roll there is an entry for the charge of his dress. Seventeen knights of the Bath were created upon this occasion, and the concourse of nobles in the ceremony was greater than usual. The whole scene is described at great length by Hall, but the following particulars are alone worthy of notice. The king and queen received the sacrament from the hands of the cardinal archbishop of Canterbury, and one host, or consecrated wafer, was divided between them. The peeresses in attendance on the queen were very numerous, and no less than three duchesses of Norfolk were present. The coronation feast was celebrated with great pomp. Holinshed says, "About foure of the clocke, the king and queene entered the hall, and the king sate in the middle, and the queene on the left hand of the table, and on everie side of her stood a countesse, holding a cloth of pleasance when she list to drinke."

## HENRY VII.

Henry VII. was crowned October 30th, 1485, and his queen, Elizabeth, October 30th, 1487. The latter was remarkable for the procession by water from the palace of Greenwich to the Tower, instead of from Westminster, as was usual; but no other alteration was made in the order of this aquatic spectacle. The queen was escorted by the lord mayor, sheriffs, and the heads of the different companies in their state barges, richly ornamented with silken pennons and streamers, and also with the banners of the different trades, on which their arms were embroidered in gold. One of these barges, called the bachelors' barge, contained an extraordinary pageant, an enormous red dragon which spouted streams of fire into the Thames. The yeomen of the guard, and the royal musicians, were brought

up the river in open boats, and the flourish of the trumpets, clarions, and other instruments, when the queen embarked at Greenwich, might be heard at London Bridge. The banks of the river were thronged with multitudes of gratified spectators, and the crews of the numerous foreign vessels which Henry's patronage of commerce had brought into the Thames expressed their admiration of the splendid spectacle by tumultuous shouts of applause. When the queen rode through the city on the following day, choirs of children dressed as angels were stationed in different places, who sang hymns and songs as she passed by. After the coronation an unfortunate accident occurred; the rabble scrambled for the cloth on which the queen walked from the Hall to the Abbey, and in the crush several persons were trodden to death.

## HENRY VIII.

Henry VIII. was extremely fond of pageantry, and he was particularly anxious about the ceremonials of his coronation. The Londoners seconded his desires, and when, after having created twenty-four knights of the Bath, he rode through London from the Tower, June 22, 1509, the streets were hung with tapestry and cloth of arras, and a great part of the south side of Cheap and part of Cornhill were hung with cloth of gold. The several companies and civic dignitaries lined the streets, and Hall tells us, "The goldsmiths' stalls unto the end of the Old Change, being replenished with virgins in white, with branches of white wax; the priestes and clerkes in rich copes, with crosses and censers of silver, censing his grace and the queene also as they passed. His grace wore in his uppermost apparell, a robe of crimson velvet, furred with ermins, his jacket or coat of raised gold, the placard imbrodered with diamonds, rubies, emerauds, great pearles, and other rich stones, a great bauderike about his neck of great balasses. The trapper of his horse damaske gold, with a deepe purple of ermins. His knights and esquires for his bodie in crimson velvet; and all the gentlemen with other of his chappell, and all his officers and household servants were apparelled in scarlet. The Queene Katherine was sitting in hir litter, borne by two white palfries, the litter covered and richlie apparelled, and the palfries trapped in white cloth of gold; hir person apparelled in white satin imbrodered, hir haire hanging downe to hir backe, beautifull and goodlie to behold, and on hir head a coronall set with manie rich orient stones."

The coronation was celebrated with brilliant "justs and turneies," which the king and queen witnessed from "a faire house covered with tapestrie." The pageants exhibited are thus described by Hall. "In the palace was made a curious founteine, and over it a castell, on the top thereof a great crowne imperiall, all the imbatelling with roses and pomegranats gilded. Under and about the said castell, a curious vine, the leives and grapes thereof gilded with fine gold, the walles of the same castell coloured white and green losengis, and in everie losing, either a rose or a pomegranat, and a sheafe of arrowes, or else K and H gilded with fine gold, with certeine arches and turrets gilded to support the said castell. And the targets of the arms of the defendants, appointed for the said justs, there-upon sumptuously set. And out at several places of the said castell, as well on the daie of the coronation, as on the daies of the said justs and turneies, out of the mouths of certeine beasts or gargels did run red, white, and claret wine."

After a flourish of trumpets a castle was brought in, supported or drawn by men, containing a lady habited as Pallas, "bearing a shield of christall." This pageant was brought before the king, to whom Pallas presented the knights dependant as her scholars, and requested that his majesty would permit them to defend the lists against all comers, which request was readily granted.

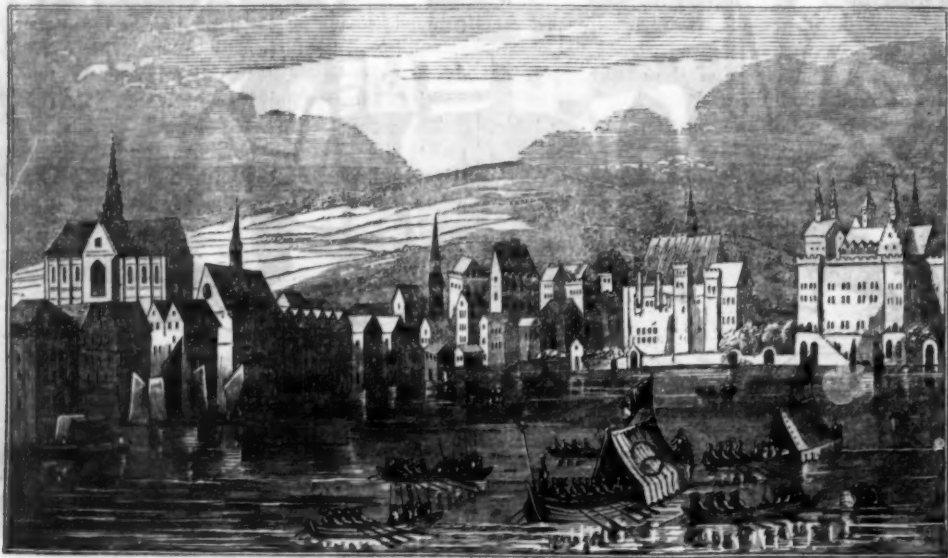
Another band of horsemen now entered, escorting eight knights, "armed at all points, with shields of their owne armes, with rich plumes, and other devises on their head-pieces, their bases and trappers of tissue, cloth of gold, silver and velvet." These were presented to the queen by a gentleman who declared that they were come "to doo feats of armes for the love of ladies," and besought her "to license these knights to prove themselves against Dame Pallas' scholars." The justs then commenced, and were continued until night, but it was not decided to which party the prize of victory belonged.

On the second day a curious pageant was exhibited by the queen's knights. When they entered the lists, there came after them "a number of hornes blowne by men appparelled in greene cloth, with caps and hosen of like sute, like foresters or keepers, and a pageant made like a parke, paleed with pales of white and greene, wherein were certeine fallow deare, and in the same parke curious trees made by craft, with bushes, fernes, and other things in like wise wrought, goodlie to behold. The which parke or devise being brought before the queene, had certeine gates thereof opened, the deare ran out thereof into the palace, the grei-hounds were let slip and killed the deare, the which deare so killed, were presented to the queene and the ladies by the foresaid knights."

These knights now proclaimed themselves servants of Dianna, who had heard accidentally while hunting that the scholars of Dame Pallas were in these parts, with whom they were anxious to prove their valour in a combat to the utterance. The king suspected that there was some grudge between the parties, and refused his consent, but he awarded that "they should tourneie together, giving but some certaine strokes, which done they departed, and so these justs brake up, and the prizes given to everie man after his deserts."

The coronation of Lady Anne Boleyn, June 1, 1533, was equally splendid; the most remarkable portions of it were the pageants erected to honour her procession through the city. In Fenchurch-street, children in the habits of foreign merchants, welcomed the queen to the city with addresses in French and English. In Gracechurch street was a pageant representing Mount Parnassus and the fountain of Helicon, which fountain, with more regard to splendour than classic propriety, poured forth streams of Rhenish wine. On the top of the hill sat Apollo with the Muses round him, playing on appropriate instruments, and at the feet of each muse were epigrams in golden letters, in which every muse "according to her propertie praised the queene."

In Leadenhall-street there was "a goodlie pageant with a type and a heavenlie rose, and under the type was a roote of gold, set on a little mountaine, environed with white roses and red; out of the type came downe a falcon all white and sat upon the roote, and incontinent came downe an angell with great melodie, and set a close crowne of gold on the falcon's head." Saint Anne and her family were represented in the same pageant, and one of the children made an oration to the queen. The three Graces sat on the Conduit in Cheap, which ran with wine. Pallas, Juno, and Venus, accompanied by the god Mercury, were rather inappropriately intermingled with the civic authorities; and when the recorder presented the queen with a thousand marks of gold, Mercury, in the name of the goddesses, gave her a ball of gold, divided into three, "signifieing the three giftes, which the three goddesses gave to hir, that is to saie, wisdom, riches, and felicities." The four cardinal virtues having been banished from the city, took their stand upon four turrets erected over the conduit in Fleet-street, just outside Fleet-street. The melodious music of the ladies who represented the virtues "seemed to be an heavenlie noise, and was much regarded and praised, and beside this the said conduit ran wine, claret and red, all the afternoon." The ceremony of the coronation and subsequent feast, need not be described. "On Mondaie were the justs of the tilt, before the king's gate, where the maior and his brethren had a goodlie standing; but there were verie few speares broke, by reason the horssees would not cope."



WATER PROCESSION FROM WESTMINSTER TO THE TOWER.